Winter \*\*

### Flood Control Project Maintenance Levee Inspections

# **LMA District Cover Sheet**

**Spring 2018 Levee Inspection Results** 

# **Sutter Maintenance Yard Maintenance Area 0017**

Spring

	(March - May)	(June - August)	(September - November)	(December - February)
† Overall LMA Rating (Fall Or	nly)			
	** Non-receipt of Summ Reports may effect o			
† SPRING INSPECTIONS: Overall maintenar deficiencies are re	nce ratings are not deterrated using the same crite			ual maintenance
FALL INSPECTIONS: The overall maint within the attache			ation and maintenance de tended to be an indiction o	
Comments				

### **Unit Cover Sheet**

**Spring 2018 Levee Inspection Results** 

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87

	Spring (March - May)	Summer (June - August)	(September - November) Fall	Winter (December - February)
Unit Maintenance Rating (Fall Only)				
Date of Inspection	4/11/2018 - 4/11/2018			
DWR Inspector	Bob Duffey			
Accompanied By	Bryan Reniff Sutter Maintenance Yard			

### Summer & Winter Inspections

The Local Maintaining Agency (LMA) is responsible for summer and winter inspections. The LMA is required to submit a report regarding summer and winter inspections to the California Department of Water Resources (DWR).

DWR must be informed on the:

- a) completion of the inspection
- b) any changes other than the results of normal maintenance
- c) corrections to deficiencies noted in this report

If additional items are noted, further documentation of those items must also be submitted.

The LMA should submit this information to DWR using the LMA web application tool available at:

### http://cdec.water.ca.gov/lma.html

If the LMA is unable to submit information on this webpage, please contact DWR for assistance.

The LMA should submit the information and any associated documentation by September 30 for summer inspections and March 31 for winter inspections.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start		Rating **	Α	Issue No.		7	
LM End		Issue Type +	Ма	Location *		N/A	
Category	Earthen L	evee		GPS La	atituc	de/Longitude	
Calegory				Start		End	
Item		s & Maintena	nce		0		0
пеш	Manuals				0		0
DWR ID	DWR_MA0	017_01_s _ 201	3_7				
		Comn	nent Cod	le			
		Inspecto	or Comm	nent			
The LMA h	nas the O8	M manuals.					

No Photos

LM Start		Rating **	Α	Issue No.		8				
LM End		Issue Type +	Ma	Location *		N/A				
Category Earthen Levee			GPS Latitude/Longitude							
Category		Start		End						
Item	Emergency Supplies &				0		0			
пеш	Equipmer	nt			0		0			
DWR ID	DWR_MA0	017_01_s _ 201	3_8							
		Comn	nent Cod	le						
Inspector Comment										
The LMA h	The LMA has adequate flood fight supplies and equipment.									

No Photos

	1	D :: **					
LM Start		Rating **	Α	Issue No.		9	
LM End		Issue Type +	Ma	Location *		N/A	
Category	Earthen L	evee		GPS La	atitud	le/Longitude	
Calegory				Start		End	
Item	Flood Pre	paredness &	Training		0		0
item					0		0
DWR ID	DWR_MA0	017_01_s _ 201	3_9				
		Comn	nent Cod	le			
		Inspecto	or Comm	ent			
The LMA	completed	flood fight trai	ning in 2	014.			

No Photos

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS: Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	3.50	Rating **	М	Issue No.	17		
LM End	3.50	Issue Type +	Ma	Location *	LS		
Category	evee	GPS La	titud	le/Longitude			
Calegory	Calegory					End	
Item	Trim / Thi	n Trees		39.1479	27°	39.147927 °	
пеш				-122.9112	94 °	-122.911294°	
DWR ID	DWR ID DWR_MA0017_01_f _ 2016_17						
Comment Code							

T1 : Trim trees to at least five feet above ground level.

Inspector Comment

No Photos

LM Start	3.60	Rating **	Α	Issue No.		26
LM End	3.60	Issue Type +	Ma	Location *		LS
Catagony	evee	GPS Latitude/Longitude				
Category				Start		End
Item	Vegetatio	n		39.1468	85 °	39.146885 °
пеш			-122.9099	32 °	-122.909932 °	
DWR ID	DWR MA0	017 01 s 201	8 26			

### Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements.

### Inspector Comment

The vegetation has been removed from the landside slope.

# Photo 1 of 1 : SP\_2018\_MA0017\_339\_26\_20180416\_00044.jpg



View of the levee with no vegetation on the landside slope.

LM Start	3.81	Rating **	M	Issue No.		15
LM End	3.84	Issue Type +	Ma	Location *		LS
Category	Earthen L	evee	GPS Lat	itud	e/Longitude	
Calegory		Start		End		
Item	Vegetatio	n		39.14498	0 °	39.144620°
Item				-122.90707	3°	-122.906546°
DWR ID	DWR_MA0	017_01_s _ 201	6_15			

### Comment Code

 $\ensuremath{\mathsf{V2}}$  : Remove the wild growth other than native grasses from the levee slopes.

### Inspector Comment

Large bushes and brambles covering wire fence, limiting visibility and access.

# Photo 1 of 1 : SP\_2018\_MA0017\_339\_15\_20180305\_00003.jpg



View of the large bushes limiting visibility and access.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

MA0017

### Flood Control Project Maintenance Levee Inspections

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	3.84	Rating **	М	Issue No.		25	
LM End	3.84	Issue Type +	Ma	Location *		LS	
Catagoni Earthen Levee			GPS Latitude/Longitude				
Category			Start		End		
Item	Trim / Thi	n Trees		39.1446	95°	39.144695 °	
пеш				-122.906668 °		-122.906668 °	
DWR ID DWR_MA0017_01_s _ 2017_25							
Comment Code							

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Trim the trees along the landside toe.

# Photo 1 of 1: SP\_2018\_MA0017\_339\_25\_20180305\_00006.jpg



View of the trees along the landside toe.

LM Start	3.95	Rating **	A/W	Issue No.		36
LM End	3.95	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	tituc	le/Longitude
Calegory	Category			Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.14379	2°	39.143792 °
пеш				-122.90479	8 °	-122.904798°
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50814 DS\_ID:844 EP\_NO: 11463

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/19/2016 Crossing appears to be in good ondition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in good condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 New flap gate installed. No other issues with pipe.

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 12.4 feet below the crown. Flap gate on the waterside (WS) end. Timber walkway on the landside (LS) slope to a timber walkway to pump house mounted on piles in drainage ditch. (24-inch pipe [HLM 3.99] authorized under Automatic Board Order (ABO) issued as Permit No. 11463, 1975 - Audrey Jones). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.2, August 1961, (HLM 3.99)].

FS Date: 11/21/2016 12:09:38 PM

### Photo 1 of 3: UCIP\_SP\_2018\_50814\_46849.jpg



24-inch CMP at outlet on WS toe.

MA0017

### Flood Control Project Maintenance Levee Inspections

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	3.95	Rating **	A/W	Issue No.		Issue No.		36 (cont)
LM End	3.95	Issue Type +	Ма	Location *				
Catagony	Category Supplemental			GPS Latitude/Longitude				
Calegory				Start		End		
Item	DWR UC	IP LMA Respo	nsibility	39.14379	92 °	39.143792 °		
Item				-122.90479	98°	-122.904798 °		
DWR ID								

### Comment Code

### Inspector Comment

FS\_ID:50814 DS\_ID:844 EP\_NO: 11463

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/19/2016 Crossing appears to be in good ondition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in good condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 New flap gate installed. No other issues with pipe.

FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 12.4 feet below the crown. Flap gate on the waterside (WS) end. Timber walkway on the landside (LS) slope to a timber walkway to pump house mounted on piles in drainage ditch. (24-inch pipe [HLM 3.99] authorized under Automatic Board Order (ABO) issued as Permit No. 11463, 1975 - Audrey Jones). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M

Manual 506.2, August 1961, (HLM 3.99)]. FS Date: 11/21/2016 12:09:38 PM

LM Start	3.95	Rating **	A/W	Issue No.	36 (cont)
LM End	3 95	Issue Type +	Ma	Location *	

# Photo 2 of 3: UCIP\_SP\_2018\_50814\_46848.jpg



Pumphouse on piles at LS toe.

### Photo 3 of 3: UCIP\_SP\_2018\_50814\_46850.jpg



New flap gate on WS

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	3.96	Rating **	М	Issue No.		Issue No.		16
LM End	4.03	Issue Type +	Ма	Location *		LS		
Catagonia Earthen Levee			GPS Latitude/Longitude					
Calegory	Category			Start		End		
Item	Vegetatio	Vegetation			1 °	39.143585°		
пеш				-122.904705 °		-122.903482 °		
DWR ID	DWR_MA0	017_01_s _ 201	6_16					

### Comment Code

V2 : Remove the wild growth other than native grasses from the levee slopes.

### Inspector Comment

Large bushes and brambles growing on wire fence on LS toe limiting visibility and access.



5/2/2016: Remove or trim dense vegetation growing on fence to allow visibility and access to L/S toe.

LM Start	4.13	Rating **	A/W	Issue No.	37	
LM End	4.13	Issue Type +	Ma	Location *		
Category			GPS Latitude/Longitude			
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.142287°		39.142287 °
пеш				-122.902436 °		-122.902436 °
DWR ID						

# Inspector Comment

Comment Code

FS\_ID:50815 DS\_ID:845 EP\_NO: 11464

Repair Type: No Action Needed

Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in goiod condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Bloody Island Pumping Plant] 1 of 2: 42-inch corrugated metal drainage pipe through the levee, 20.2 feet below the crown. Concrete headwall and discharge apron on the waterside (WS) shoulder. Three vertical pump units mounted on a reinforced concrete pump platform in drainage ditch at the landside (LS) toe. Flap gates in concrete discharge well on the LS. Combination flap and slide gate on a gravity pipe from drainage ditch into discharge well. (two 42-inch pipes [HLM 4.18] authorized under Automatic Board Order (ABO) issued as Permit No. 11464, 1975 - Lake County). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.2, August 1961, (HLM 4.18)].

FS Date: 11/21/2016 12:10:29 PM

# Photo 1 of 3 : UCIP\_SP\_2018\_50815\_46853.jpg



Pumping Plant on LS shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.13	Rating **	A/W	Issue No.		37 (cont)	
LM End	4.13	Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS La	atitud	e/Longitude	
Calegory			Start		End		
Item	DWR UC	IP LMA Respo	nsibility	39.1422	87°	39.142287	0
пеш				-122.9024	36°	-122.902436	٥
DWR ID							

# Comment Code

### Inspector Comment

FS\_ID:50815 DS\_ID:845 EP\_NO: 11464

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in goiod condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Bloody Island Pumping Plant] 1 of 2: 42-inch corrugated metal drainage pipe through the levee, 20.2 feet below the crown. Concrete headwall and discharge apron on the waterside (WS) shoulder. Three vertical pump units mounted on a reinforced concrete pump platform in drainage ditch at the landside (LS) toe. Flap gates in concrete discharge well on the LS. Combination flap and slide gate on a gravity pipe from drainage ditch into discharge well. (two 42-inch pipes [HLM 4.18] authorized under Automatic Board Order (ABO) issued as Permit No. 11464, 1975 - Lake County). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.2, August 1961, (HLM 4.18)].

FS Date: 11/21/2016 12:10:29 PM

LM Start	4.13	Rating **	A/W	Issue No.	37 (cont)
I M End	4.13	Issue Type +	Ma	Location *	



Slide gates in CMP risers on WS shoulder.

# Photo 3 of 3: UCIP\_SP\_2018\_50815\_46851.jpg



Pumping Plant on LS shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.14	Rating **	A/W	Issue No.		38
LM End	4.14	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Lati	tud	le/Longitude
Calegory	gory			Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.14226	2°	39.142262 °
пеш				-122.902423	3°	-122.902423 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50816 DS\_ID:852 EP\_NO: 11464

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in goiod condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Bloody Island Pumping Plant] 2 of 2: 42-inch corrugated metal drainage pipe through the levee, 14.6 feet below the crown. Concrete headwall and discharge apron on the waterside (WS) shoulder. Three vertical pump units mounted on a reinforced concrete pump platform in drainage ditch at the landside (LS) toe. Flap gates in concrete discharge well on the LS. Combination flap and slide gate on a gravity pipe from drainage ditch into discharge well. (two 42-inch pipes [HLM 4.18] authorized under Automatic Board Order (ABO) issued as Permit No. 11464, 1975 - Lake County). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.2, August 1961, (HLM 4.18)].

FS Date: 11/21/2016 12:11:01 PM

LM Start	4.14	14 Rating **		Issue No.	38 (cont)
LM End	4.14	Issue Type +	Ma	Location *	



Pumping plant on LS shoulder.

### Photo 2 of 3: UCIP\_SP\_2018\_50816\_46855.jpg



Slide gate in CMP riser on WS shoulder.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

### **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.14	Rating **	A/W	Issue No.		38 (cont)	
LM End	4.14	Issue Type +	Ма	Location *			
Category	Suppleme	ental		GPS La	titud	le/Longitude	
Calegory			Start		End		
Item	DWR UC	IP LMA Respo	onsibility	39.14226	2°	39.142262	0
пеш				-122.90242	23°	-122.902423	0
DWR ID							

# Comment Code

### Inspector Comment

FS\_ID:50816 DS\_ID:852 EP\_NO: 11464

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 crossing appears to be in goiod condition.4/23/2015 No issues with pipe.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.

FIELD STRUCT\_DESC: [Bloody Island Pumping Plant] 2 of 2: 42-inch corrugated metal drainage pipe through the levee, 14.6 feet below the crown. Concrete headwall and discharge apron on the waterside (WS) shoulder. Three vertical pump units mounted on a reinforced concrete pump platform in drainage ditch at the landside (LS) toe. Flap gates in concrete discharge well on the LS. Combination flap and slide gate on a gravity pipe from drainage ditch into discharge well. (two 42-inch pipes [HLM 4.18] authorized under Automatic Board Order (ABO) issued as Permit No. 11464, 1975 - Lake County). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.2, August 1961, (HLM 4.18)].

FS Date: 11/21/2016 12:11:01 PM

# Photo 3 of 3 : UCIP\_SP\_2018\_50816\_46854.jpg

Pumping plant on LS shoulder.

LM Start	4.16	Rating **	U	Issue No.		2	
LM End	7.10	Issue Type +	Ma	Location *	WS		
Category	Catagoni Earthen Levee			GPS Latitude/Longitude			
Calegory	Calegory		Start		End		
Item	Trim / Thi	Trim / Thin Trees		39.14189	4 °	39.120609°	
item		-122.90220	1°	-122.887166 °			
DWR ID	DWR_MA0	017_01_s _ 201	2_2			·	

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Comment Code

Trees and limbs are completely obstructing visibility on crown and WS. Crown is too narrow to drive, and overgrown with weeds, brush and trees. Road follows LS toe.

# Photo 1 of 2: SP\_2018\_MA0017\_339\_2\_20180305\_00001.jpg



View of the trees along the waterside slope and toe.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.16	Rating **	U	Issue No.	2 (cont)	
LM End	7.10	Issue Type +	Ma	Location *	WS	
Cotogon Earthen Levee				GPS Latitude/Longitude		
Category		Start		End		
Item	Trim / Thi	n Trees		39.1418	94°	39.120609°
пеш				-122.9022	01 °	-122.887166 °
DWR ID	DWR_MA0017_01_s _ 2012_2					
		Comn	nent Cod	le		

T2: Thin trees to allow visibility of the ground and room to flood fight.

### Inspector Comment

Trees and limbs are completely obstructing visibility on crown and WS. Crown is too narrow to drive, and overgrown with weeds, brush and trees. Road follows LS toe.

# Photo 2 of 2: SP\_2018\_MA0017\_339\_2\_20180305\_00002.jpg



Photo taken at LM 6.41 looking west showing overgrown LS slope of levee at right and toe road at left. Note trees obstructing visibility and access at levee crown. Crown is +/- 5 feet wide, and impassible to vehicles due to vegetation, and in some places, to pedestrians.

4/19/2016

LM Start	4.27	Rating **	M	Issue No.		39
LM End	4.27	Issue Type +	En	Location *		
Category	Suppleme	ental		GPS La	tituc	le/Longitude
Calegory				Start		End
Item	DWR UC	IP Field Study		39.1404	22 °	39.140422 °
пеш				-122.9020	22 °	-122.902022 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50817 DS\_ID:846 EP\_NO: 11462 Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 No riser lid or slide gate wheel. (DWR Sutter Yard- AFreitag)6/14/2016 No riser lid and no wheel to operate screw gate.4/23/2015 Still no lid on riser and wheel to operate slide gate is missing.7/3/2014 Same as last inspection.12/23/2013

Same as last inspection.8/2/2013 Same as last

inspection.12/13/2012 No lid on riser-may or may not be an issue. FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 19 feet below the crown. Slide gate in 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. (Automatic Board Order (ABO) issued as Permit No. 11462, 1975 - Hobson) [Additional Reference(s): DWR Levee Log, 2005].

FS Date: 11/21/2016 12:11:29 PM

### Photo 1 of 2: UCIP\_SP\_2018\_50817\_46858.jpg



Slide gate in CMP riser on WS slope.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS : Water Side	M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR : Crown	U : Unacceptable	A/W : Acceptable but Monitor & Maintain	En: Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.27	Rating **	М	Issue No.		39 (cont)	
LM End	4.27	Issue Type +	En	Location *			
Category	Suppleme	ental		GPS Lat	itud	le/Longitude	
Calegory				Start		End	
Item	DWR UC	IP Field Study		39.14042	2 °	39.140422	0
пеш				-122.90202	2 °	-122.902022	0
DWR ID							

# Comment Code

### Inspector Comment

FS ID:50817 DS\_ID:846 EP\_NO: 11462

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 No riser lid or slide gate wheel. (DWR Sutter Yard- AFreitag)6/14/2016 No riser lid and no wheel to operate screw gate.4/23/2015 Still no lid on riser and wheel to operate slide gate is missing.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last

inspection.12/13/2012 No lid on riser-may or may not be an issue. FIELD\_STRUCT\_DESC: 24-inch corrugated metal drainage pipe through the levee, 19 feet below the crown. Slide gate in 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. (Automatic Board Order (ABO) issued as Permit No. 11462, 1975 -Hobson) [Additional Reference(s): DWR Levee Log, 2005]. FS Date: 11/21/2016 12:11:29 PM

# Photo 2 of 2: UCIP\_SP\_2018\_50817\_46857.jpg



LS toe at approximate location of pipe inlet.

LM Start	4.55	Rating **	M	Issue No.	27	
LM End	7.29	Issue Type +	Ма	Location *	LS	
Category	evee	GPS Latitude/Longitude				
Category				Start		End
Item	Vegetatio	n		39.136650	°	39.118672°
пеш				-122.900850	°	-122.884865 °
DWR ID	DWR_MA0	_MA0017_01_s _ 2018_27				
		Comp	ant Can	ام		

### Comment Code

V1 : Control annual grass and weeds on the levee slopes and easements

### Inspector Comment

Remove the native vegetation from the landside slope.

### Photo 1 of 1: SP 2018 MA0017 339 27 20180416 00045.jpg



View of the levee with native vegetation over 1 foot tall.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	4.55	Rating **	М	Issue No.		28
				Location *		
LM End	7.29	Issue Type +	Ma	Location		WS
Category	Earthen L	evee		GPS La	atitud	le/Longitude
Calegory				Start		End
Item	Vegetatio	n		39.1366	50°	39.118672°
пеш			-122.9008	50°	-122.884865 °	
DWR ID	DWR_MA0	017_01_s _ 201	8_28			
		Comn	nent Cod	le		
V1 : Contro easements		grass and wee	eds on th	e levee slop	pes	and
		Inspecto	or Comm	nent		
Remove the vegetation from the crown and waterside slope.						



View of the vegetation on the crown and waterside slope.

LM Start	4.77	Rating **	A/W	Issue No.		29	
LM End		Issue Type +	Ob	Location *			
Supplemental				GPS Latitude/Longitude			
Calegory					Start		
Item	2017 Stor	m Damage		39.13416	°		0
пеш				-122.89847	°		0
DWR ID	DWR_MA0017_01_f _ 2017_29						
Comment Code							

### Inspector Comment

Levee Evaluation Comments

Description: Site ID No:22

Site Designation:81-10 Repair Type: Seepage

Rating: Field Date: Notes: No Photos

# Levee Inspection Report By Mile - Spring 2018

### **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.33	Rating **	A/W	Issue No.		35
LM End	5.43	Issue Type +	Ob	Location *		
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory				Start		End
Item	2017 Stor	m Damage		39.1274	55 °	39.127431 °
пеш				-122.89366	62 °	-122.891920 °
DWR ID	DWR_MA0	017_01_f _ 201	7_35			

No Photos

### Inspector Comment

Comment Code

Levee Evaluation Comments

Description: Site ID No:21 Site Designation:81-8 Repair Type: Seepage

Rating: Field Date: Notes:

LM Start	5.34	Rating **	М	Issue No.		40
LM End	5.34	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS La	titud	e/Longitude
Calegory				Start		End
Item	DWR UCI	IP LMA Respo	onsibility	39.1274	49 °	39.127449°
пеш				-122.8934	60°	-122.893460 °
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50818 DS\_ID:847 EP\_NO: 11469

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 Sack ring still in place. (DWR Sutter Yard- AFreitag)6/14/2016 Sack ring is still built up underneath the pipes.4/23/2015 Sack ring is still built up underneath the pipes.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.12/13/2012 flood fight materials-ring levees around both LS and WS slopes at pipe crossing. This may or may not be an issue.

FIELD\_STRUCT\_DESC: 1 of 2: 16-inch steel drainage pipe through the levee, 5 feet below the crown. Drainage pumping plant on the landside (LS). Flap gate on the waterside (WS) end. (one 16-inch and one 36-inch pipes [HLM 5.43] authorized under Automatic Board Order (ABO) issued as Permit No. 11469, 1975 - RD 2070). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3,

August 1961, (HLM 5.43)]. FS Date: 11/21/2016 12:11:57 PM

### Photo 1 of 2: UCIP\_SP\_2018\_50818\_46860.jpg



Pumping plant, pipes, and ring levees on LS toe.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Ya	ard - Middle Creek Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.34	Rating **	М	Issue No.		40 (cont)
LM End	5.34	Issue Type +	Ма	Location *		
Category	Supplemental		GPS Lat	ituc	le/Longitude	
Calegory			Start		End	
Item	DWR UCIP LMA Responsibility			39.12744	9°	39.127449 °
пеш				-122.89346	0 °	-122.893460 °
DWR ID						

### Inspector Comment

Comment Code

FS\_ID:50818 DS\_ID:847 EP\_NO: 11469

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 Sack ring still in place. (DWR Sutter Yard- AFreitag)6/14/2016 Sack ring is still built up underneath the pipes.4/23/2015 Sack ring is still built up underneath the pipes.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.12/13/2012 flood fight materials-ring levees around both LS and WS slopes at pipe crossing. This may or may not be an issue.

FIELD\_ŚTRUCŤ\_DESC: 1 of 2: 16-inch steel drainage pipe through the levee, 5 feet below the crown. Drainage pumping plant on the landside (LS). Flap gate on the waterside (WS) end. (one 16-inch and one 36-inch pipes [HLM 5.43] authorized under Automatic Board Order (ABO) issued as Permit No. 11469, 1975 - RD 2070). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 5.43)].

FS Date: 11/21/2016 12:11:57 PM



16-inch pipe, flap gate, air vent, and ring levee on WS slope.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.35	Rating **	М	Issue No.		41
LM End	5.35	Issue Type +	Ма	Location *		
Category			Supplemental			
Calegory				Start		End
Item	DWR UCIP LMA Responsibility			39.12745	1°	39.127451 °
пеш				-122.89345	°	-122.893450 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50819 DS\_ID:853 EP\_NO: 11469

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 Sack ring still in place. (DWR Sutter Yard- AFreitag)6/14/2016 Sack ring is still built up underneath the pipes.4/23/2015 Sack ring still built up underneath the

pipes.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.12/13/2012 flood fight materials-ring levees around both LS and WS slopes at pipe crossing. This may or may not be an issue.

FIELD\_STRUCT\_DESC: 2 of 2: 36-inch steel drainage pipe through the levee, 5 feet below the crown. Flap gate and air vent on the waterside (WS) slope. (one 36-inch and one 16-inch pipes [HLM 5.43] authorized under Automatic Board Order (ABO) issued as Permit No. 11469, 1975 - RD 2070). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 5.43)].

FS Date: 11/21/2016 12:12:31 PM

LM Start	5.35	Rating **	М	Issue No.	41 (cont)
LM End	5.35	Issue Type +	Ma	Location *	

### Photo 1 of 2: UCIP\_SP\_2018\_50819\_46864.jpg



Pipes and pump house on LS toe with ring levees.

### Photo 2 of 2: UCIP\_SP\_2018\_50819\_46863.jpg



Pipe, flap gate, air vent, and sandbags on WS slope.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.78	Rating **	М	Issue No.	42	
LM End	5.78	Issue Type +	Ma	Location *		
Category		Supplemental				e/Longitude
Calegory				Start		End
Item	DWR UCIP LMA Responsibility			39.12761	2°	39.127612 °
пеш				-122.88552	°	-122.885520 °
DWR ID						

### Comment Code

### Inspector Comment

FS ID:50820 DS\_ID:848 EP NO: 11457

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 No riser lid or slide gate wheel. (DWR Sutter Yard- AFreitag)6/14/2016 No riser lid and no wheel to operate screw gate.4/23/2015 No cover on riser and no wheel to operate gate.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Handle to operate gate was in place but still no cover on riser.12/13/2012 No cover on CMP riser and no handle for actuating gate. This may or may not be an issue.

FIELD\_STRUCT\_DESC: 24-inch drainage pipe under patrol road and through the levee, 13.5 feet below the crown. Concrete "U" shaped headwall on the landside (LS) end. Slide gate in 36-inch corrugated metal pipe (CMP) riser on the waterside (WS) slope. Riser unit is mounted on concrete base. (24-inch pipe [HLM 5.87] authorized under Automatic Board Order (ABO) issued as Permit No. 11457, 1975 -Crawford). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 5.87)].

FS Date: 11/21/2016 12:12:57 PM

LM Start	5.78	Rating **	М	Issue No.	42 (cont)
LM End	5.78	Issue Type +	Ma	Location *	





36-inch CMP riser and slide gate on WS slope.

### Photo 2 of 2: UCIP\_SP\_2018\_50820\_46865.jpg



Approximate location of inlet on LS toe (not visible).

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.96	Rating **	A/W	Issue No.		43
LM End	5.96	Issue Type +	Ма	Location *		
Category				GPS Latitude/Longitude		
Calegory				Start		End
Item	DWR UC	DWR UCIP LMA Responsibility			22 °	39.126322°
пеш				-122.88276	64 °	-122.882764 °
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50821 DS\_ID:849 EP NO: 11467

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 Flap gate propped open. Will make sure its closed before flood season.4/23/2015 Flap gate propped open. Not an issue at this time. Will close it before high water

season.7/3/2014 Same as last inspection12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Highland Canal Diversion Weir and Drainage] 1 of 2: 54-inch corrugated metal drainage pipe through the levee 11.5 feet below the crown. Highland Canal Diversion Weir and Drainage Structure on the landside (LS). Concrete headwall on both landside (LS) and waterside (WS) toe with flap gate on the WS toe. (two 42-inch pipes [HLM 6.05] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 6.05)].

FS Date: 11/21/2016 12:13:32 PM

LM Start	5.96	Rating **	A/W	Issue No.	43 (cont)
LM End	5.96	Issue Type +	Ma	Location *	





Concrete weir/dam and channel on LS toe.

### Photo 2 of 3: UCIP\_SP\_2018\_50821\_46868.jpg



pipe and flap gate on WS toe.

* Location	** Rating		+ Issue Type
LS: Land Side N/A: Not Applicable WS: Water Side CR: Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

MA0017

### Flood Control Project Maintenance Levee Inspections

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Wa	erway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter	Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.96	Rating **	A/W	Issue No.		43 (cont)
LM End	5.96	Issue Type +	Ма	Location *		
Category	Suppleme	ental		GPS Lat	itud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	nsibility	39.12632	2°	39.126322 °
Item				-122.88276	4 °	-122.882764 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50821 DS\_ID:849 EP\_NO: 11467

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 Flap gate propped open. Will make sure its closed before flood season.4/23/2015 Flap gate propped open. Not an issue at this time. Will close it before high water

season.7/3/2014 Same as last inspection12/23/2013 Same as last

inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Highland Canal Diversion Weir and Drainage] 1 of 2: 54-inch corrugated metal drainage pipe through the levee 11.5 feet below the crown. Highland Canal Diversion Weir and Drainage Structure on the landside (LS). Concrete headwall on both landside (LS) and waterside (WS) toe with flap gate on the WS toe. (two 42-inch pipes [HLM 6.05] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 6.05)].

FS Date: 11/21/2016 12:13:32 PM



Concrete headwall at inlet on LS toe.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.96	Rating **	A/W	Issue No.		44
LM End	5.96	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Lati	tud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.12629	3°	39.126298°
пеш				-122.88275	o °	-122.882756 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50822 DS\_ID:854 EP NO: 11467

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 Flap gate propped open. Will make sure its closed before flood season.4/23/2015 Flap gate propped open. Not an issue at this time. Will close it before high water season.7/3/2014 Same as last inspection.12/23/2013 Same as last

inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Highland Canal Diversion Weir and Drainage] 2 of 2: 54-inch corrugated metal drainage pipe through the levee, 11.5 feet below the crown Highland Canal Diversion Weir and Drainage Structure on the landside (LS). Concrete headwall on both landside (LS) and waterside (WS) toe with flap gate on the WS toe. (two 42-inch pipes [HLM 6.05] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 6.05)].

FS Date: 11/21/2016 12:14:05 PM

LM Start	5.96	Rating **	A/W	Issue No.	44 (cont)
LM End	5.96	Issue Type +	Ma	Location *	





Concrete dam/weir and channel on LS toe.

### Photo 2 of 3: UCIP\_SP\_2018\_50822\_46871.jpg



Pipe and flap gate on WS toe.

* Location	** Rating		+ Issue Type
LS : Land Side N/A : Not Applicable WS : Water Side CR : Crown	A : Acceptable M : Minimally Acceptable U : Unacceptable	N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain	Ma : Maintenance Deficiency Ob : Design & System Obsolescence En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Wa	erway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter	Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.96	Rating **	A/W	Issue No.	44 (cont)	
LM End	5.96	Issue Type +	Ma	Location *		
Category	Suppleme	ental		GPS Lat	itud	le/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	onsibility	39.12629	8 °	39.126298°
пеш				-122.88275	6°	-122.882756 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50822 DS\_ID:854 EP\_NO: 11467

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/27/2017 This structure is inspected annually under the Structure and Channel Summer Inspection (part of the Levee Inspection Program) conducted by the DWR Flood Project Integrity and Inspection Branch (FPIIB). (DWR UCIP - O. Magana)

10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 Flap gate propped open. Will make sure its closed before flood season.4/23/2015 Flap gate propped open. Not an issue at this time. Will close it before high water season.7/3/2014 Same as last inspection.12/23/2013 Same as last

season.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last inspection.

FIELD\_STRUCT\_DESC: [Highland Canal Diversion Weir and Drainage] 2 of 2: 54-inch corrugated metal drainage pipe through the levee, 11.5 feet below the crownHighland Canal Diversion Weir and Drainage Structure on the landside (LS). Concrete headwall on both landside (LS) and waterside (WS) toe with flap gate on the WS toe. (two 42-inch pipes [HLM 6.05] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin). [Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 6.05)].

FS Date: 11/21/2016 12:14:05 PM



Concrete headwall on LS toe.

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Wa	erway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter	Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	5.99	Rating **	М	Issue No.		45	
LM End	5.99	Issue Type +	En	Location *			
Category	Supplemental			GPS Latitude/Longitude			
Calegory				Start		End	
Item	DWR UC	IP Field Study		39.1260	57°	39.126057	0
пеш				-122.8830	96 °	-122.883096	0
DWR ID							

### Comment Code

### Inspector Comment

FS\_ID:50823 DS\_ID:20589 EP\_NO: N/A

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 12" pipe not present for this inspection. (DWR Sutter Yard- AFreitag)6/14/2106 12" pipe was removed from the roadway. Portable pump was not found on the bank this time.4/23/2015 12" pipe still ran over the top of roadway. 7/3/2014 Same as last inspection.12/23/2013 No signs of 12" pvc. Portable tow-pump was lowered down on waterside with 12" pipe ran over roadway.8/2/2013 Same as last inspection.12/13/2012 No permit for crossing.

FIELD\_STRUCT\_DESC: \*REMOVED\* 12-inch high-density polyethylene (HDPE) drainage pipe through the levee, 1.5 feet below the crown. No permit has been identified since crossing was field discovered in 2012.

FS Date: 11/21/2016 12:14:52 PM



Portable pump on WS and temporary piping over roadway

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.	46	
LM End	6.00	Issue Type +	En Location *			
Category	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP Field Study		39.12603	B°	39.126038 °
пеш				-122.88335	1°	-122.883351 °
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50824 DS\_ID:20587 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosoin is still present. (DWR Sutter Yard - afreitag)4/23/2015 Erosion on WS shoulder is still present. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard - afreitag)8/2/2013 Erosion on WS shoulder above pipes. (DWR Sutter Yard - afreitag)12/13/2012 No permit for this crossing. This is a primer line, used to fill up main pipe before its pump is turned on (Permit No. 11467). (DWR UCIP - wwylie)

FIELD\_STRUCT\_DESC: 4-inch polyvinyl chloride (PVC) conduit of an unknown purpose through the levee, 2 feet below the crown, with plastic pipe running through it to pump on the landside (LS). No permit has been identified since crossing was field discovered in 2012.

FS Date: 11/21/2016 12:15:33 PM

LM Start	6.00	Rating **	U	Issue No.	46 (cont)
LM End	6.00	Issue Type +	En	Location *	



4-inch pvc pipe with green flexible pipe running through it on WS shoulder.



4-inch pvc pipe with green flexible pipe running through it on WS shoulder.

N: Not Inspected/Rated C: Corrected A/W: Acceptable but Monitor & Maintain Issue Type Ma : Maintenance Deficiency Ob: Design & System Obsolescence

En: Enforcement

**FINAL DATA** Page 21 of 28

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Wa	erway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter	Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.		46 (cont)		
LM End	6.00	Issue Type +	En	Location *				
Catagony	Category				GPS Latitude/Longitude			
Calegory				Start		End		
Item	DWR UC	IP Field Study		39.12603	3°	39.126038	0	
пеш				-122.88335	1°	-122.883351	0	
DWR ID								

# Comment Code

### Inspector Comment

FS\_ID:50824 DS\_ID:20587 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosoin is still present. (DWR Sutter Yard - afreitag)4/23/2015 Erosion on WS shoulder is still present. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard - afreitag)8/2/2013 Erosion on WS shoulder above pipes. (DWR Sutter Yard - afreitag)12/13/2012 No permit for this crossing. This is a primer line, used to fill up main pipe before its pump is turned on (Permit No. 11467). (DWR UCIP - wwylie)

FIELD\_STRUCT\_DESC: 4-inch polyvinyl chloride (PVC) conduit of an unknown purpose through the levee, 2 feet below the crown, with plastic pipe running through it to pump on the landside (LS). No permit has been identified since crossing was field discovered in 2012. FS Date: 11/21/2016 12:15:33 PM

# Photo 3 of 3: UCIP\_SP\_2018\_50824\_46876.jpg



LS pump station on shoulder.

# Levee Inspection Report By Mile - Spring 2018

### **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.	47	
LM End	6.00	Issue Type +	En	Location *		
Catagony	Suppleme	ental		GPS Lat	tud	e/Longitude
Calegory	Category			Start		End
Item	DWR UC	IP Field Study		39.12603	3°	39.126038 °
пеш				-122.88335	1°	-122.883351 °
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50825 DS\_ID:20588 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosion is still present. (DWR Sutter Yard - afreitag)4/23/2015 Erosion still present on WS shoulder. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard - afreitag)8/2/2013 Erosion on WS shoulder above pipes. (DWR Sutter Yard - afreitag)12/13/2012 No permit for this crossing. It is unclear what these hydraulic lines are for, but it is probably the works for a hydraulic butterfly valve at the outlet. (DWR UCIP - wwylie) FIELD\_STRUCT\_DESC: 4-inch polyvinyl chloride (PVC) conduit of an unknown purpose through the levee, 2 feet below the crown, with hydraulic lines running through it to pump on the landside (LS) shoulder. No permit has been identified since crossing was field discovered in 2012. FS Date: 11/21/2016 12:16:01 PM

LM Start	6.00	Rating **	U	Issue No.	47 (cont)
LM End	6.00	Issue Type +	En	Location *	



Pipe and hydraulic lines on WS shoulder.

### Photo 2 of 3: UCIP\_SP\_2018\_50825\_46873.jpg



Pump station on LS shoulder, see hydraulic pump at right.

# **Levee Inspection Report By Mile - Spring 2018**

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.		47 (cont)	
LM End	6.00	Issue Type +	En	Location *			
Category	Supplemental				GPS Latitude/Longitude		
Calegory				Start		End	
Item	DWR UC	IP Field Study		39.12603	3°	39.126038	
пеш				-122.88335	1°	-122.883351	
DWR ID							

# Comment Code

### Inspector Comment

FS\_ID:50825 DS\_ID:20588 EP\_NO: N/A Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosion is still present. (DWR Sutter Yard - afreitag)4/23/2015 Erosion still present on WS shoulder. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard - afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard - afreitag)8/2/2013 Erosion on WS shoulder above pipes. (DWR Sutter Yard - afreitag)12/13/2012 No permit for this crossing. It is unclear what these hydraulic lines are for, but it is probably the works for a hydraulic butterfly valve at the outlet. (DWR UCIP - wwylie) FIELD\_STRUCT\_DESC: 4-inch polyvinyl chloride (PVC) conduit of an unknown purpose through the levee, 2 feet below the crown, with hydraulic lines running through it to pump on the landside (LS) shoulder. No permit has been identified since crossing was field discovered in 2012.

FS Date: 11/21/2016 12:16:01 PM





Erosion on WS shoulder

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.		48
LM End	6.00	Issue Type +	Ма	Location *		
Category				GPS La	titud	e/Longitude
Calegory				Start		End
Item	DWR UC	IP LMA Respo	nsibility	39.12602	27 °	39.126027°
пеш				-122.88337	71 °	-122.883371 °
DWR ID						

# Comment Code

### Inspector Comment

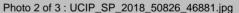
FS\_ID:50826 DS\_ID:850 EP\_NO: 11467 Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosion is still present. (DWR Sutter Yard - afreitag)4/23/2015 Same as last inspection. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard afreitag)8/2/2013 Same as last inspection. (DWR Sutter Yard afreitag)12/13/2012 This pipe and appurtances do not match what was described in the permit (PN: 11467). Does not appear to be in compliance with board regulations. (DWR UCIP - wwylie) FIELD\_STRUCT\_DESC: 12-inch steel drainage pipe through the levee, 2 feet below the crown. Butterfly valve on the landside (LS) shoulder. Pump and electrical panel, along with multiple valves and appurtenances, on the LS shoulder. (12-inch pipe [HLM 6.11] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - B. F. Modglin Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, 1967, (HLM 6.11)]. FS Date: 11/21/2016 12:16:25 PM

LM Start	6.00	Rating **	U	Issue No.	48 (cont)
LM End	6.00	Issue Type +	Ma	Location *	



12-inch pipe and appurtances on WS shoulder.





12-inch pipe and appurtances on WS shoulder.

N : Not Inspected/Rated C : Corrected A/W : Acceptable but Monitor & Maintain + Issue Type
Ma : Maintenance Deficiency

Ob : Design & System Obsolescence En : Enforcement

# **Levee Inspection Report By Mile - Spring 2018**

### **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	6.00	Rating **	U	Issue No.		48 (cont)
LM End	6.00	Issue Type +	Ma	Location *		
Catagony	Supplemental			GPS Latitude/Longitude		
Calegory	Category				Start	
Item	DWR UC	P LMA Respo	onsibility	39.12602	7 °	39.126027°
пеш				-122.88337	1°	-122.883371°
DWR ID						

### Comment Code

### Inspector Comment

FS\_ID:50826 DS\_ID:850 EP\_NO: 11467 Repair Type: Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 WS erosion still present. (DWR Sutter Yard- AFreitag)6/14/2016 WS erosion is still present. (DWR Sutter Yard - afreitag)4/23/2015 Same as last inspection. (DWR Sutter Yard - afreitag)7/3/2014 Same as last inspection. (DWR Sutter Yard afreitag)12/23/2013 Same as last inspection. (DWR Sutter Yard afreitag)8/2/2013 Same as last inspection. (DWR Sutter Yard afreitag)12/13/2012 This pipe and appurtances do not match what was described in the permit (PN: 11467). Does not appear to be in compliance with board regulations. (DWR UCIP - wwylie) FIELD\_STRUCT\_DESC: 12-inch steel drainage pipe through the levee, 2 feet below the crown. Butterfly valve on the landside (LS) shoulder. Pump and electrical panel, along with multiple valves and appurtenances, on the LS shoulder. (12-inch pipe [HLM 6.11] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - B. F. Modglin Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, 1967, (HLM 6.11)]. FS Date: 11/21/2016 12:16:25 PM

# Photo 3 of 3: UCIP\_SP\_2018\_50826\_46880.jpg



Pumping plant and appurtances on LS shoulder.

LM Start	6.03	Rating **	U	Issue No.		23
LM End	7.28	Issue Type +	Ob	Location *	LS	
Category	Earthen L	evee	GPS Latitude/Longitude			
Calegory				Start	End	
Item	Seepage	/ Sandboils		39.1260	45°	39.118727°
пеш				-122.8838	28°	-122.884842 °
DWR ID	DWR_MA0	017_01_s _ 201	7_23			

# Comment Code

### Inspector Comment

There was water along the landside slope so that area was unable to be inspected.

### Photo 1 of 1: SP\_2018\_MA0017\_339\_23\_20180305\_00005.jpg



View of the water along the landside slope.

* Location		** Rating		+ Issue Type
LS: Land Side	N/A: Not Applicable	A : Acceptable	N : Not Inspected/Rated	Ma : Maintenance Deficiency
WS: Water Side		M : Minimally Acceptable	C : Corrected	Ob : Design & System Obsolescence
CR · Crown		II · I Inaccentable	A/W · Accentable but Monitor & Maintain	En : Enforcement

# Levee Inspection Report By Mile - Spring 2018

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	7.16	Rating **	М	Issue No.		49
LM End	7.16	Issue Type +	Ma	Location *		
Category	Supplemental			GPS Latitude/Longitud		
Calegory	Category				End	
Item	DWR UC	IP LMA Respo	onsibility	39.12008	3°	39.120083°
пеш				-122.88650	2°	-122.886502°
DWR ID						

# Inspector Comment

Comment Code

FS\_ID:50827 DS\_ID:851 EP\_NO: 11467

Repair Type: Non-Urgent Crossing Status: Found

UCIP Comments: 10/19/2016 Abandoned- should be done so properly.

(DWR Sutter Yard- AFreitag)6/14/2016 Abandoned

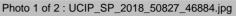
crossing.4/23/2015 Same as last inspection. Pipe still needs to be properly abandoned.7/3/2014 Same as last inspection.12/23/2013 Same as last inspection.8/2/2013 Same as last

inspection.12/13/2012 Pipe should be properly abandoned.

Inspection.12/13/2012 Pipe should be properly abandoned.
FIELD\_STRUCT\_DESC: \*ABANDONED\* 1 of 2: 16-inch steel drainage pipe through the levee, 8 feet below the crown. Drainage pumping plant on the landside (LS). Flap gate on the waterside (WS) end. Steel plate welded on end of pipe at LS toe. (one 16-inch and one 24-inch pipes [HLM 7.79] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin)[Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M

Manual 506.3, August 1961, (HLM 7.19)]. FS Date: 11/21/2016 12:16:52 PM

LM Start	7.16	Rating **	М	Issue No.	49 (cont)
LM End	7.16	Issue Type +	Ma	Location *	





Pumping plant in shed on LS at drainage ditch.

### Photo 2 of 2: UCIP\_SP\_2018\_50827\_46883.jpg



Steel plate welded over end of pipe at LS toe.

# **Levee Inspection Report By Mile - Spring 2018**

# **Sutter Maintenance Yard Maintenance Area 0017**

Waterway	Bank	Unit Miles	Inspection Start/End	Inspector
Unit No. 01 Lake County Sutter Maintenance Yard - Middle Creek	Left	3.87	04/11/2018 04/11/2018	Bob Duffey

LM Start	7.16	Rating **	A/W	Issue No.		50
LM End	7.16	Issue Type +	Ма	Location *		
Category	Supplemental			GPS Latitude/Long		
Calegory	Calegory					End
Item	DWR UC	IP LMA Respo	nsibility	39.12006	9°	39.120069°
Item				-122.88648	4 °	-122.886484 °
DWR ID						

# Comment Code

### Inspector Comment

FS\_ID:50828 DS\_ID:855 EP NO: 11467

Repair Type: No Action Needed Crossing Status: Found

UCIP Comments: 10/19/2016 Crossing appears to be in good condition. (DWR Sutter Yard- AFreitag)6/14/2016 Crossing appears to be in good condition.4/23/2015 No issues seen with

pipe.7/3/2014 Same as last inspection.8/2/2013 Same as last inspection.12/23/2013 Same as last inspection.

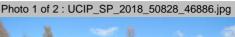
FIELD\_STRUCT\_DESC: 2 of 2: 24-inch steel drainage pipe through

the levee, 8 feet below the crown.

Drainage pumping plant on the landside (LS). Flap gate on the waterside (WS) end. (one 16-inch and one 24-inch pipes [HLM 7.79] authorized under Automatic Board Order (ABO) issued as Permit No. 11467, 1975 - Modglin)[Additional Reference(s): DWR Levee Log, 2005. USACE Sacramento O&M Manual 506.3, August 1961, (HLM 7.19)].

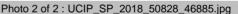
FS Date: 11/21/2016 12:17:36 PM

LM Start	7.16	Rating **	A/W	Issue No.	50 (cont)
LM End	7.16	Issue Type +	Ma	Location *	





24-inch steel pipe and pump house on LS.





Air vent on pipe at LS pumphouse.